

AMENDMENTS TO THE CLAIMS

Listing of claims:

1. (currently amended) A defensin-stimulating composition, comprising a an isolated Fusobacterium associated defensin inducer (FAD-1) polypeptide comprising SEQ. ID. NO. 1, and an excipient.

2-3. (cancelled)

4. (currently amended) The ~~The~~ defensin-stimulating composition of claim ~~[[2]]~~ 1, wherein the polypeptide is a fusion protein additionally comprising an amino acid sequence heterologous to the amino acid sequence of SEQ ID NO.: ~~1, SEQ ID NO.:3, SEQ ID NO.:5, or SEQ ID NO.:7.~~

5. (original) The defensin-stimulating composition of claim 1, further comprising an antimicrobial agent.

6. (original) The defensin-stimulating composition of claim 1, further comprising an antifungal agent.

7. (currently amended) The defensin-stimulating composition of claim 1 ~~or claim 2~~ wherein the composition stimulates defensin production in an epithelial cell.

8. (currently amended) The defensin-stimulating composition of claim 1 ~~or claim 2~~, wherein the composition stimulates defensin production in the mouth.

9. (original) The defensin-stimulating composition of claim 8, wherein the composition is a mouth wash, toothpaste, or film.

10. (currently amended) The defensin-stimulating composition of claim 1 ~~or claim 2~~, wherein the composition stimulates defensin production in the cornea.

11. (original) The defensin-stimulating composition of claim 7, wherein the composition is an eye drop or eye cream.

12. (currently amended) The defensin-stimulating composition of claim 1 ~~or claim 2~~, wherein the composition stimulates defensin production in the skin.

13. (original) The defensin-stimulating composition of claim 12, wherein the composition is a skin cream or skin lotion.

14. (withdrawn) A method for treating a beta-defensin associated disorder comprising administering to a subject in need thereof the defensin-stimulating composition of claim 1.

15. (withdrawn) The method of claim 14, wherein the beta-defensin associated disorder is periodontal disease.

16. (withdrawn) The method of claim 14, wherein the beta-defensin associated disorder is an infection.

17. (withdrawn) The method of claim 16, wherein said infection is an infection of the cornea, the skin, or a mucosal surface.

18. (withdrawn) The method of claim 14, wherein the beta-defensin associated disorder is a BD-2 associated disorder.

19. (withdrawn) The method of claim 14, wherein the beta-defensin associated disorder is a BD-3 associated disorder.

20. (withdrawn) The method of claim 14, wherein the infectious agent is a bacterium.

21. (withdrawn) The method of claim 20, wherein the bacterium is resistant to one or more antimicrobial agents.

22. (withdrawn) The method of claim 20, wherein the bacterium is *Porphyromonas gingivalis*.

23. (withdrawn) The method of claim 16, wherein the infection is caused by a virus.

24. (withdrawn) The method of claim 16, wherein the infection is caused by a fungus.

25. (withdrawn) The method of claim 24, wherein the fungus is resistant to one or more antifungal agent.

26. (withdrawn) The method of claim 14, wherein the beta-defensin associated disorder is cancer.

27. (withdrawn, currently amended) A method for stimulating production of beta-defensin-2 (BD-2), beta-defensin-3 (BD-3), or both comprising contacting a cell with a composition of claim 1 ~~or claim 2~~.

28. (withdrawn) A method of claim 27, wherein the cell is an epithelial cell.

29. (withdrawn) The method of claim 28, wherein the epithelial cell is a cultured epithelial cell.

30. (withdrawn) The method of claim 28, wherein the epithelial cell is located in a vertebrate.

31. (withdrawn) The method of claim 29, wherein the vertebrate is a human.

32. (withdrawn) The method of claim 28, wherein the epithelial cell is selected from the group consisting of: an oral epithelial cell, a corneal epithelial cell, and a keratinocyte.

33. (withdrawn) A method for identifying a composition that stimulates BD-2 or BD-3 expression in an epithelial cell of a vertebrate, the method comprising: a contacting the epithelial cell with a composition comprising an extracellular component of a BD-2 or BD-3 resistant bacterium; b. measuring BD-2 or BD-3 expression in the epithelial cell.

34. (withdrawn) The method of claim 33, wherein the BD-2 or BD-3 resistant bacterium is a commensal organism in the vertebrate.

35. (withdrawn) A method of screening for agents that induce an innate immune response in a human comprising providing a cellular extract of a commensal microorganism and determining a change in the innate immune response.

36. (withdrawn) The method of claim 35, wherein commensal microorganism is a BD-2 or BD-3 resistant bacterium.

37. (withdrawn) The method of claim 35, wherein the change in the innate immune response is stimulation of BD-2 or BD-3 expression in a cell.